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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,771	02/25/2002	Sharon Mantin	COLB-120XX	4427
207	7590	04/19/2006	EXAMINER	
WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP TEN POST OFFICE SQUARE BOSTON, MA 02109			BELLO, AGUSTIN	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,771

Applicant(s)

MANTIN ET AL.

Examiner

Agustin Bello

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-42 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/2/06
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (U.S. Patent No. 6,067,288) in view of Kakizaki (U.S. Patent Application Publication No. 2001/0046074) and Bowmaster (U.S. Patent No. 5,455,832).

Regarding claim 1, Miller teaches a method of monitoring performance of a communications network, comprising the steps of: coupling a first communication channel and a second communication channel to be monitored (e.g. "first and second transmission line channels" of column 5 lines 54-65); simultaneously monitoring said first communication channel and said second communication channel (e.g. "monitoring first and second transmission line channels" of column 5 lines 54-65) so as to accumulate performance data of one of said channels in an active counter (reference numeral 19 in Figure 3); detecting an event between said first communication channel and said second communication channel (e.g. "to detect events" of column 5 lines 54-65); and thereafter accumulating performance data of another of said channels in said active counter (e.g. "the first module values to the accumulator PM data module" of column 5 lines 54-65). Miller differs from the claimed invention in that Miller fails to specifically teach that the first and second channels are coupled together in a protection-switching configuration and that the event is a protection switch-over. However, Miller teaches

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that the inventive performance monitoring technique is well known in the art to “predict the onset of failures” and to “execute steps toward preventive or remedial maintenance of the equipment,” thereby suggesting its applicability to protection-switching configurations (column 1 lines 50-68). Miller further teaches that the invention can be applied to any of a plurality of modern transmission system, which most certainly would have included protection-switching configurations (column 1 lines 19-37). Moreover, Miller specifically discloses the inventions applicability to SONET transport system (throughout the specification of Miller), thereby further suggesting a protection-switching configuration. As such, one skilled in the art would clearly have recognized the applicability of Miller’s invention to protection-switching configurations as claimed. Furthermore, Kakizaki in the same field of endeavor, teaches that it is well known in the art to detect a protection switch-over, and to monitor the performance of the transmission lines after the switch-over (paragraph [0058, 0065]). One skilled in the art would have been motivated to monitor performance after the switchover in order to improve maintenance performance (paragraph [0058, 0065] of Kakizaki). Therefore, it would have been obvious to one skilled in the art at the time the invention was made apply the teachings of Kakizaki to those of Miller and arrive at the claimed invention.

Miller further differs from the claimed invention in that Miller fails to specifically teach monitoring of a first and second channel in a common layer of the network. However, Bowmaster teaches that monitoring in a common layer of network is well known in the art (see for example Bowmaster’s section dedicated to performance monitoring beginning at column 7 line 8 and column 13 lines 47-68). One skilled in the art would have been motivated to monitor both channels in a common layer of a network in order to detect transmission degradation in

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either channel (column 7 lines 24-25 of Bowmaster). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to monitor a first and second channel in a common layer of the network as taught by Bowmaster in the device of Miller.

Regarding claim 2, Miller teaches memorizing a value of said active counter following expiration of a read interval; and resetting said active counter (column 9 lines 40-61).

Regarding claims 3, 4, 32, 33, 39, and 40, Miller teaches that said communication network is an optical network (e.g. SONET throughout).

Regarding claims 5, 21, 34, and 41, Miller differs from the claimed invention in that Miller fails to specifically teach that the said communication network is an SDH network. However, Miller teaches that the invention is applicable to any type of network (column 1 lines 19-37), which clearly would have included SDH networks.

Regarding claims 6-8 and 13-15, Miller teaches that the system meets the requirements of the GR-253-CORE standard (column 2 lines 63-67 and column 5 lines 41-47) which includes the 1+1, 1:1, and 1:n protection-switching configurations.

Regarding claims 9, 16, and 22, Miller teaches coupling a first communication channel and a second communication channel into a system (e.g. "first and second transmission line channels" of column 5 lines 54-65), in which one of said channels operates as an active channel; simultaneously monitoring said first communication channel and said second communication channel (e.g. "monitoring first and second transmission line channels" of column 5 lines 54-65) so as to accumulate first performance data in a first counter and second performance data in a second counter with respect to said first communication channel and said second communication channel respectively; while said first communication channel is operating as said active channel,

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accumulating said first performance data in a third counter (reference numeral 29 in Figure 3); detecting a switchover between said first communication channel and said second communication channel (e.g. "change of state" in column 11 lines 13-33); and thereafter accumulating said second performance data in said third counter (column 11 lines 26-31). Miller differs from the claimed invention in that Miller fails to specifically teach that the first and second channels are coupled together in a protection-switching configuration and that the third counter accumulates data after detection of a switchover. However, Miller teaches that the inventive performance monitoring technique is well known in the art to "predict the onset of failures" and to "execute steps toward preventive or remedial maintenance of the equipment," thereby suggesting its applicability to protection-switching configurations (column 1 lines 50-68). Miller further teaches that the invention can be applied to any of a plurality of modern transmission system, which most certainly would have included protection-switching configurations (column 1 lines 19-37). Moreover, Miller specifically discloses the inventions applicability to SONET transport system (throughout the specification of Miller), thereby further suggesting a protection-switching configuration. As one skilled in the art would clearly have recognized the applicability of Miller's invention to protection-switching configurations as claimed. Furthermore, Kakizaki in the same field of endeavor, teaches that it is well known in the art to detect a protection switch-over, and to monitor the performance of the transmission lines after the switch-over (paragraph [0058, 0065]). One skilled in the art would have been motivated to monitor performance after the switchover in order to improve maintenance performance (paragraph [0058, 0065] of Kakizaki). Therefore, it would have been obvious to

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one skilled in the art at the time the invention was made apply the teachings of Kakizaki to those of Miller and arrive at the claimed invention.

Regarding claims 10, 17, and 23 Miller teaches that after performing said step of detecting said protection switchover (e.g. “change of state” in column 11 lines 13-33) and prior to performing said step of accumulating said second performance data in said third counter (reference numeral 901 in Figure 9); resetting said first counter (column 9 lines 40-61 and column 11 lines 26-31); and resetting said second counter (column 9 lines 40-61 column 11 lines 26-31).

Regarding claims 11, 18, and 24, Miller teaches memorizing a value of said third counter following expiration of a read interval (e.g. “stored” in column 11 lines 26-31); and resetting (e.g. “reset” in column 11 lines 26-31) said third counter.

Regarding claims 12, 19, and 25, Miller teaches that after performing said step of detecting said protection switchover delaying performance of said step of accumulating said second performance data in said third counter until expiration of a read interval (e.g. via reference numeral 33 in Figure 3).

Regarding claim 20 and 26, Miller teaches that said steps of monitoring said first channel and monitoring said second channel are performed at a system interface (reference numeral 3 in Figure 1).

Regarding claim 27 and 35, Miller teaches first port connectable first channel of a communications network; second port connectable to a second channel of said communications network (e.g. “monitoring first and second transmission line channels” of column 5 lines 54-65); first counter (reference numeral 19 in Figure 3) for accumulating first data that is received in said

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first port; a second counter (reference numeral 19 in Figure 3) for accumulating second data that is received in said second port; and a third counter (reference numeral 21, 23, 25, 27, 29 in Figure 3), and a processor for controlling said first counter, said second counter said third counter and said switch (reference numeral 9 in Figure 2); wherein in a first mode of operation said first counter and said third counter accumulate said first data, and said second counter accumulates said second data; and in a second mode of operation said first counter accumulates said first data, and said second counter and said third counter accumulate said second data (e.g. based on switch over or “event” or “change of state” discussed throughout Miller). Miller differs from the claimed invention in that Miller fails to specifically teach a switch for associating said third counter with one of said first port and said second port said third counter accumulating one of said first data and said second data responsive to said switch-over. However, Kakizaki in the same field of endeavor, teaches that it is well known in the art to detect a protection switch-over, and to monitor the performance of the transmission lines after the switch-over (paragraph [0058, 0065]). One skilled in the art would have been motivated to monitor performance after the switchover in order to improve maintenance performance (paragraph [0058, 0065] of Kakizaki). Therefore, it would have been obvious to one skilled in the art at the time the invention was made apply the teachings of Kakizaki to those of Miller and arrive at the claimed invention.

Regarding claims 28 and 36, Miller teaches a data memory (reference numeral 17 in Figure 2) accessible by said processor, wherein responsive to control signals of said processor, values accumulated in said first counter, said second counter, and said third counter are stored in said data memory (column 8 lines 10-14).

Regarding claim 29, Miller teaches said control signals are generated at predefined read intervals (column 14 lines 7-38).

Regarding claims 30 and 37, Miller teaches that said first counter, said second counter, and said third counter are software counters (column 7 lines 61-67).

Regarding claims 31 and 38, Miller teaches that said first port and said second port are disposed at a systems interface of said communications network (reference numeral 3 in Figure 1).

Regarding claim 42, Miller differs from the claimed invention in that Miller fails to specifically teach that responsive to control signals of said processor, a content of said third counter (reference numeral 29 in Figure 3) of said first module is transferred to said third counter of said second module (reference numeral 29 in Figure 3). However, Miller does teach that the modules can be combined to achieve specific PM data acquisition and analysis functions. As such, one skilled in the art would clearly have recognized that responsive to control signals of said processor, a content of said third counter (reference numeral 29 in Figure 3) of said first module is transferred to said third counter of said second module (reference numeral 29 in Figure 3). One skilled in the art would have been motivated to do so in order to maintain a inclusive record of events for both sets of counters. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to transfer a content of said third counter (reference numeral 29 in Figure 3) of said first module to said third counter of said second module (reference numeral 29 in Figure 3).

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB



AGUSTIN BELLO
PRIMARY EXAMINER